



WATER-ENERGY-LAND USE LINKAGES

Nexus solutions for a climate resilient Central Asia

Project Activities (2023-2028)

Last updated: May 2023

Project overview

Partners



Supported by:



based on a decision of
the German Bundestag



- Regional institutions
- Other development co-operation partners
- Private sector
- Academia
- Civil society organisations

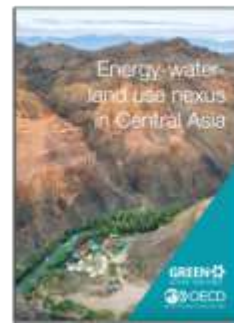
Overall project objectives

- **Mainstream** the principles of cross-sectoral cooperation between water, energy and land-use (or “Nexus”) into development planning in Central Asia
- Expand concrete **evidence base** on benefits of Nexus approaches
- Design a **financing mechanism** to promote Nexus investments
- Develop and apply practical **tools and instruments** to support decision makers for enhanced cross-sectoral and transboundary co-operation
- Organise **regional political and technical dialogues** and facilitate **capacity development**

Calls for action

from country/regional consultations and preparatory analysis
(June 2021 – June 2022)

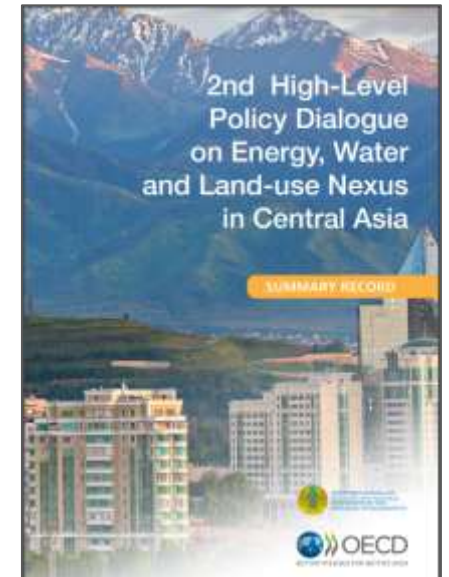
- Need to see **why cooperation is important** and to **understand the “business case” for cooperation** across Water, Energy and Land-use sectors and between countries.
- Call for **compelling evidence base on benefits** to secure political support and inform decision-making to better mainstream the Nexus approach.
- **Practical tools and instruments** to support decision makers
- Demand for **more pilot projects** to demonstrate the benefits of cooperation on the Nexus.
- Need to **combine all this with targeted capacity development and political dialogue** to drive the progress.



Support from Central Asian countries

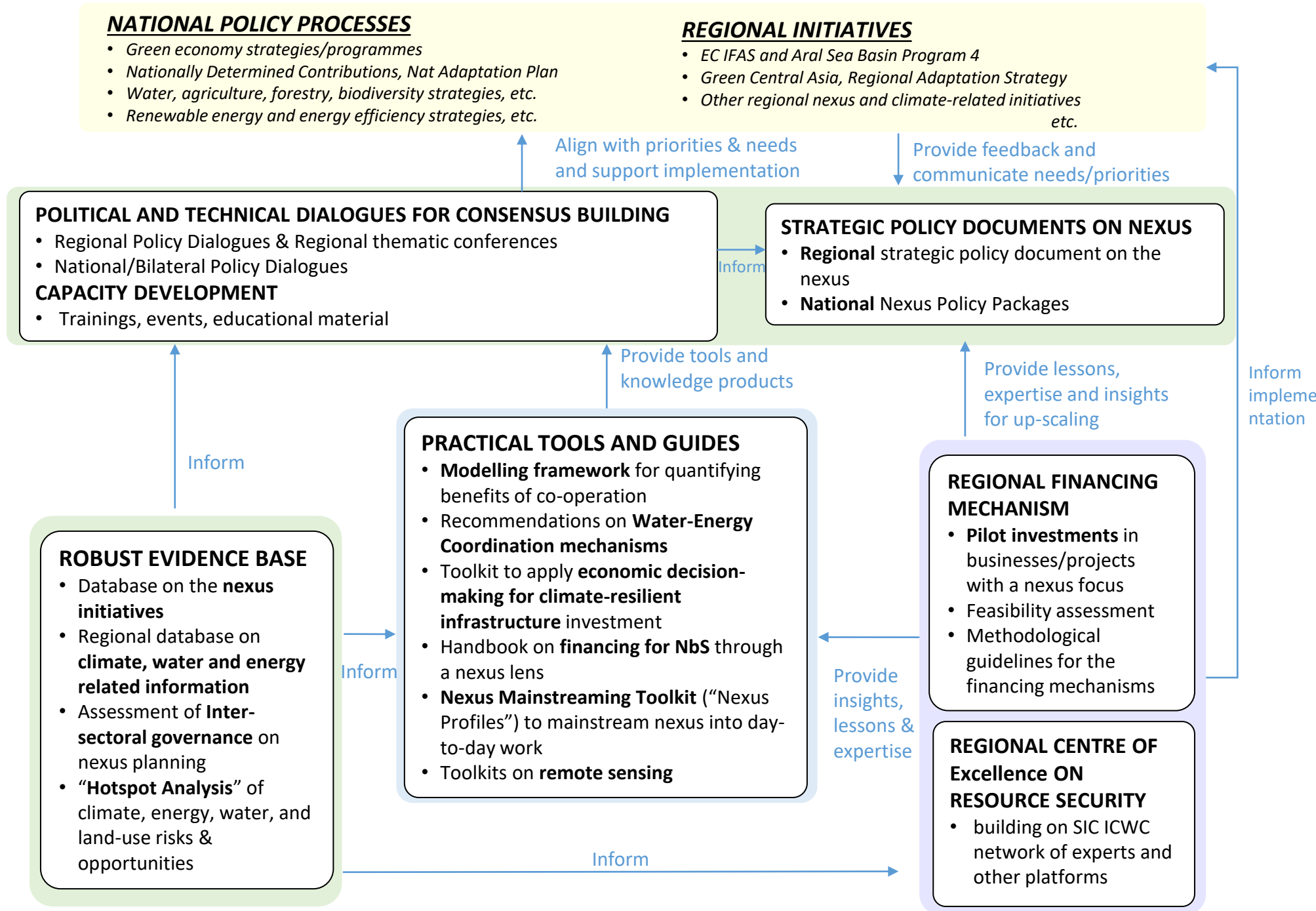
Summary record from the High-level Policy Dialogue on Energy, Water and Land-use Nexus in Central Asia (16 June 2022):

- Participants from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan in this Policy Dialogue
 - welcomed the proposed project.
 - reaffirmed the need to expand inter-sectoral and inter-state co-operation in the region for the coordinated use of water, energy and land resources,
 - supported the development of proposals for policy recommendations by the Consortium towards the facilitation of further regional co-operation
 - expressed intention for participation of country representatives in relevant activities during the period of its implementation.

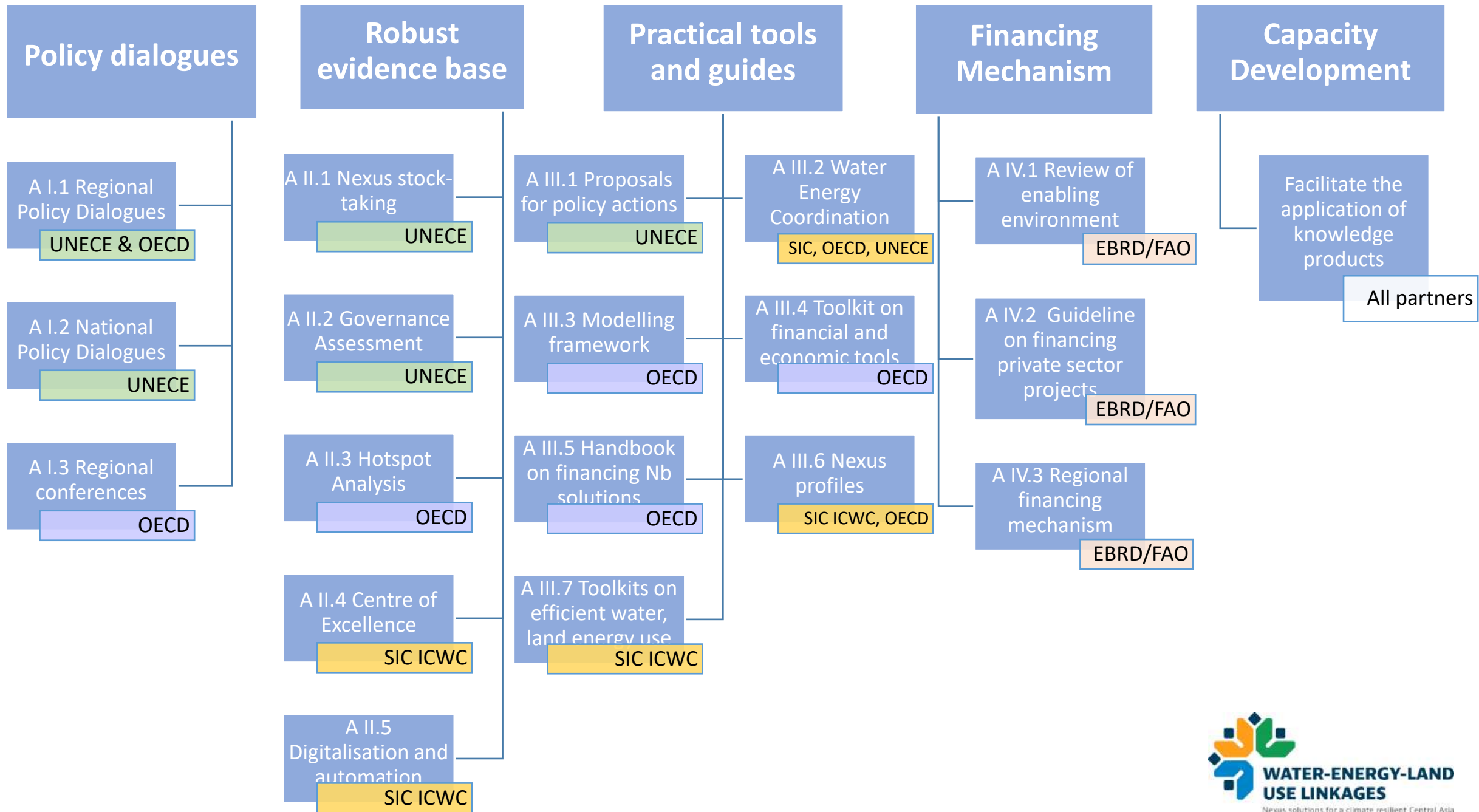


[English version](#)
[Русская версия](#)

Project activities and interlinkages with national and regional processes



Roles of Consortium Partners



Activities led by the Organisation for Economic Co-operation and Development (OECD)

About the OECD

- Working with Central Asia over the past two decades with a particular focus on economic and financial aspects of policy reforms on water resource management, environmental protection and climate action.
 - regional and national level data and information; evidence base on good practices; as well as practical toolkits to support decision making (e.g. WHAT-IF model in Kazakhstan)
 - policy recommendations e.g. irrigation tariff reform in Tajikistan
 - support to legal and regulatory frameworks e.g. surface water abstraction charges in Kyrgyzstan
- Exchange good practice and lessons (through [GREEN Action Task Force](#), hosted by the OECD)
- Acting as the Consortium Lead for the project on Energy, Water and Land-use Nexus in Central Asia (the Project)





Proposed activities to be led by the OECD

- Regional “**hotspot**” analysis of climate, energy, water and land use risks and opportunities in Central Asia
- A **modelling framework** to explore approaches to quantify benefits of regional co-operation on the energy-water-land use nexus
- A toolkit on application of economic and financial decision support tools for **climate-resilient infrastructure**
- A Handbook on **financing Nature-based Solutions** through the nexus lens in Central Asia



Regional “hotspot” analysis of climate, energy, water and land use risks/opportunities in Central Asia (II. 3)

- Proposed activities
 - Analyse place-specific challenges and opportunities associated with energy, water, and land-use security across the Central Asia region.
 - Present results of the analysis as a “**Nexus Hotspot Analysis**” that:
 - **maps** where current and future climate and natural resource security risks exist;
 - identifies **key areas of action** to address the risks;
 - shows how **cross-sectoral cooperation** could generate opportunities to promote such action
- Expected outcomes/impacts
 - Increased awareness among ministries, agencies and other actors about the nexus-related challenges and opportunities specific to particular sub-regions, cities, basins, etc. in Central Asia

A modelling framework to quantify benefits of regional co-operation on the energy-water-land use nexus (III.3)

- Proposed activities
 - Develop a **framework to quantify economic and non-economic benefits** of regional co-operation on the nexus (with SIC ICWC and with input from UNECE)
 - Build on existing models by SIC ICWC, UNECE and others (*e.g. USAID WAVE, GIZ, ADB, WB, SDC, IMWI, etc.*)
 - Start with designing a framework that looks at **inter-linkages between different thematic models** (*e.g. hydrological, climate, energy, land-use*)
 - Propose options to quantify ‘economic value’ of benefit from greater co-operation on the nexus in the region
- Expected outcomes/impacts
 - Enhanced awareness about (economic) **value of benefits** of ambitious, co-ordinated actions on energy, water and land-use management
 - **Greater momentum for scaling up finance** for such actions, supported by clearer/quantitative information on their benefits.



A toolkit on application of economic and financial decision support tools through a nexus lens (III.4)

- Proposed activities
 - Focus on how to use the nexus approach to make infrastructure resilient to future climate risks in Central Asia
 - Build on existing methodologies: *e.g. Cost-Benefit analysis, Cost-Effective analysis, Multi-Criteria Analysis, UNECE Tool-kit on sustainable RE investment, infrastructure planning tools by development banks*
 - Develop a practical toolkit that guides how to select and apply different economic and financial decision support methodologies (“**Tool Navigator**”)
- Expected outcomes/impacts
 - Pragmatic approaches to selecting and using different decision support tools that integrate the nexus considerations and climate resilience into infrastructure development in Central Asia.



Regional capacity development activities in co-operation with regional and international institutions (V.1)

- Proposed activities
 - Organise, with all other Consortium Partners, capacity development activities for policy makers from planning and sectoral ministries, and other actors where relevant
 - Facilitate exchange of good practice and lessons on the nexus in the region, building on relevant work packages under the Project.
 - Build on existing platforms such as SIC ICWC’s network of country experts, and other Nexus initiatives implemented in Central Asia (*e.g. CAREC, USAID WAVE, etc*)
 - Contribute to capacity development of “decision makers” of the future
- Expected outcomes
 - Enhanced capacity of participants in:
 - understanding and using knowledge products produced under the Nexus project,
 - implementing actions to further integrate the nexus considerations into their day-to-day work.



Activities led by United Nations Economic Commission for Europe (UNECE)

About UNECE

- Capabilities and experiences relevant to the project
 - **UNECE** is a multilateral platform that **facilitates greater economic integration and cooperation** among its fifty-six member States (which include all five Central Asian countries)
 - It promotes sustainable development and economic prosperity **through policy dialogue, negotiation of international legal instruments, development of regulations and norms, exchange and application of best practices** as well as **economic and technical expertise, and technical cooperation** for countries with economies in transition.
- Function/role in the project proposed
 - UNECE will access the **UN Special Programme for the Economies of Central Asia (SPECA)** platform that has been co-hosted with UNESCAP to strengthen nexus work.
 - UNECE will provide substantive input on **nexus and transboundary cooperation**, including:
 - Water and energy expertise
 - Development of regional strategies and national work packages on nexus

Regional and national policy dialogues

- Proposed activities
 - **Regional policy dialogues:** Regional political process driven through UN Special Programme for the Economies of Central Asia (SPECA)
 - **National and/or bilateral multi-stakeholder policy dialogues:** Multi-stakeholder policy dialogues,
 - building on the effort already initiated through the National Policy Dialogues (NDPs), strengthening the link to energy/renewable energy.
 - Bilateral dialogues for transboundary cases
 - **Regional thematic conferences**
 - scope to be decided: hydro and non-hydro energy renewable energy development through a nexus lens, finance and investment for nexus approach, improvement of dam safety, operationalisation of an Energy-Water Consortium, etc

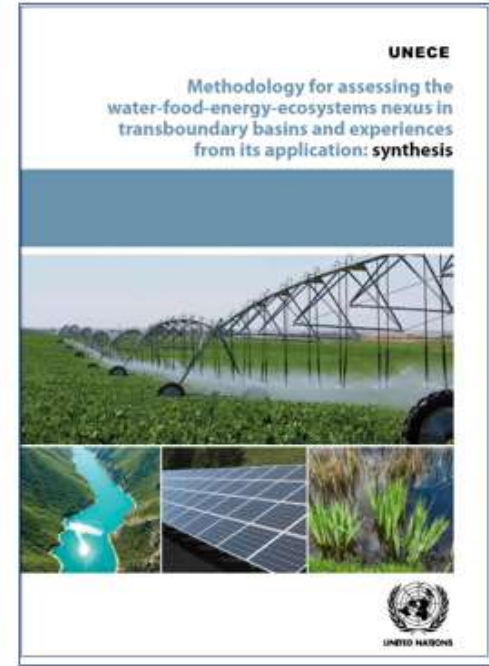
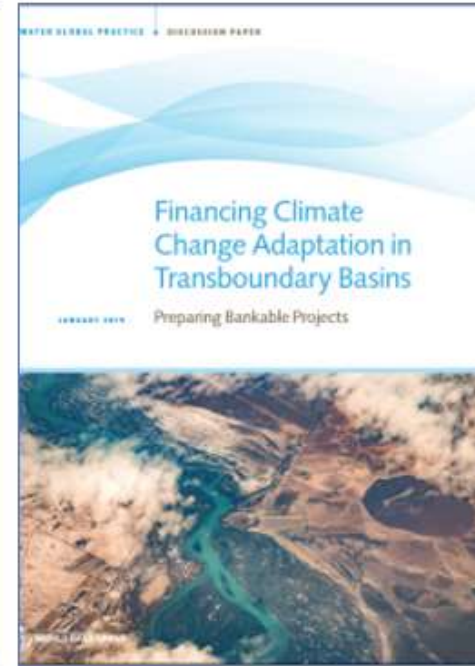
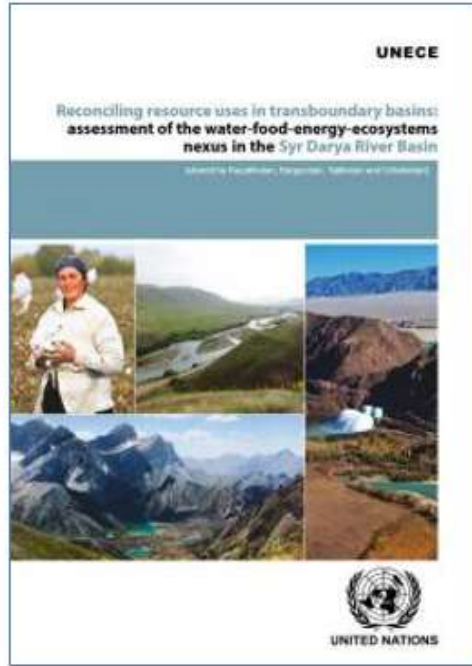
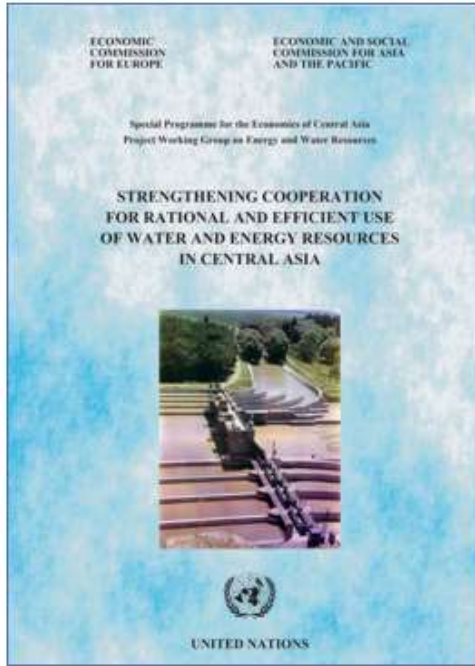
Stocktaking and assessment

- Proposed activities
 - **Participatory cross-regional stocktaking of nexus initiatives:** Assessment of existing work carried out, and being carried out, by other actors on nexus and resource management in Central Asia
 - through a participatory process (e.g. with relevant ministries to energy, water and land use management, development partners, civil society organisations, etc.)
 - will consider, for example, institutional arrangements and market dynamics.
 - **Assessment of inter-sectoral governance on nexus planning at regional and national levels:**
 - will be carried out with a mixed approach, including top-down (broad overview of governance institutions, policies, etc.) and bottom-up (focused interviews with knowledgeable people about the issues that we know exist) assessments.
 - Specific focus: transboundary dimension of water/nexus governance.

Regional and national strategy and policies

- Proposed activities
 - **Regional strategy and National policy packages:** Proposals for policy actions
 - Developed through the national and regional policy dialogues (A.I)
 - Will reflect the challenges and opportunities emerging from II.2 (Assessment of inter-sectoral governance) and II.3 (“Nexus Hotspot Analysis” - OECD SIC-ICWC), and related recommendations, as well as from the thematic work to be done in A III (SIC-ICWC and OECD) and IV (EBRD and FAO).
 - One possible focus for regional proposal: Regional Dam Safety Agreement, depending on the possible role of EC IFAS.

Further UNECE resources





**Activities led by
Scientific Information Centre for Interstate
Commission for Water Coordination of Central
Asia (SIC ICWC)**

About SIC ICWC



- SIC ICWC is the consortium's technical regional implementing partner
- KEY STRENGTHS:
 - An informational and analytical body within the system of **ICWC/IFAS**
 - **Strong presence in the region:** 30 year experience on transboundary and national water management in Central Asia; “health check” of the project's approaches in the context
 - **SIC ICWC Plus** Established network of partners and experts (nat'l experts in the project preparation, etc)
 - **Key areas:** sustainable water management and its links to land use, food, energy, climate and environmental security
 - **Key activities:** Information, Research, Knowledge Generation and Dissemination, Capacity Development, Modeling, Analytics, Science-Policy Interface
 - **Selected products:** CaWater-Info.Net Portal (<http://cawater-info.net/>); Regional Information System; modeling instruments and regular analytics to decision-makers; diagnostic studies; Central Asian Water Yearbook

Regional Centre of Excellence (Activity II.4)



- Proposed activities
 - develop a **proposal for design** of regional Centre of Excellence for the nexus approach building on existing networks, platforms, centers such as the EECCA Expert Platform on Water Security, Sustainable Development and Further Studies, the ICWC Regional Training Center.
 - conduct joint **analytical studies** involving national experts
- Expected outcome:
 - Enhanced regional research capacity facilitating evidence-driven and knowledge-based cooperation in Central Asia
 - Enhanced capacity of young practitioners in the nexus approach and enhanced trust and networks among present and future policy makers and leaders.

Improved access to data through digitilisation and automation (Activity II.5)



- Proposed activities
 - Improve the **knowledge base** of CAWater-Info.net portal, including re-design and population with new data on the nexus and climate
 - Improve **Regional Water Information Database**: populate with new data, develop a new user-friendly GIS based interface, introduce more visualization.
 - Facilitate introducing **automation** for better water management and distribution, esp. in the Syr Darya (KZ, ICWC minute): assess the technical condition of gauging stations, equipment needs, conduct a feasibility study
- Expected outcome:
 - Enhanced regional information and knowledge base better capturing data and information related to energy-water-land use nexus and climate change to enable evidence-based decision making, identification of trade-offs and formulation of innovative approaches for policy issues across sectors

A Central Asian Water and Energy Consortium or other acceptable mechanism (Activity III.2)



- Proposed activities:
 - Assess the need for a **Central Asia Water-Energy Consortium** to support more efficient and flexible exchange of water and energy and provide recommendations on a possible structure and operation of the Consortium
 - *Approach*: build on the history; encourage and facilitate discussion among the CA governments on political and technical feasibility of the concept; coordinate with other development partners
- Expected outcome:
 - Enhanced understanding among policy makers of political and technical feasibility of a Central Asia Water-Energy Consortium and its workable structure

Nexus Profiles - A Nexus Mainstreaming Toolkit (Activity III.6)



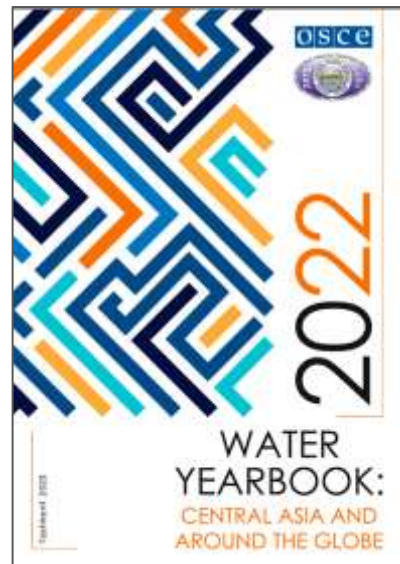
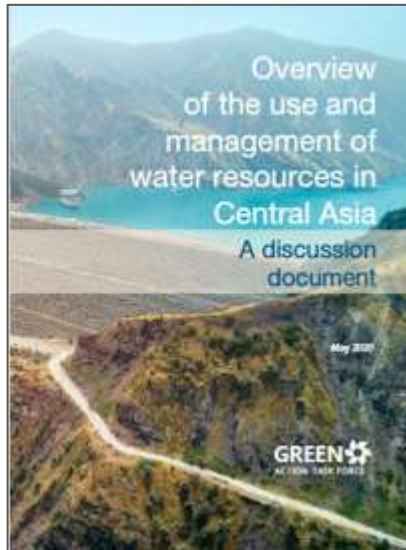
- Proposed activities:
 - Develop a nexus mainstreaming toolkit (or “**Nexus Profiles**”) with practical recommendations on how relevant strategies, sectoral goals and functions of ministries and agencies can be modified to better integrate the nexus considerations,
 - Potential focuses areas: policies and strategies, planning, regulation, service delivery mechanisms, budgeting, monitoring and evaluation, and reporting
- Expected outcome:
 - Enhanced understanding among relevant governmental entities about the practical application of /operationalising the nexus approach in their day-to-day activities

Toolkits with a focus on remote sensing data for water, land, energy use (Activity III.7)



- Proposed activities:
 - Develop **two toolkits** with a focus on remote sensing data for efficient water, land, energy use that aim to provide practical support to day-to-day activities by different actors such as agro-clusters, Water User Associations and farmers.
 - *e.g.* hydro module zoning, adjusting crop irrigation regimes, multiple water use planning in agro-cluster
 - Conduct **field studies** and consultations with individual countries
- Expected outcome:
 - Improved water, energy and land security and enhanced capacities of different actors such as agro-clusters, WUAs and farmers that lead to more efficient water, land, energy use

Further SIC ICWC resources



CAWater-Info

www.cawater-info.net

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European Bank
for Reconstruction and Development



Food and Agriculture
Organization of the
United Nations

**Activities led by
European Bank for Reconstruction and
Development (EBRD) with Food and Agriculture
Organisation of UN (FAO)**



Sustainable financing opportunities for projects with an energy-water-land use nexus focus (Activity IV)

- **Proposed activities**
 - Develop a **Regional Financing Mechanism for Nexus** in Central Asia:
 - Develop a methodological guideline for financing private-sector projects through a water, energy and food nexus.
 - Deploy financial solutions (e.g. investment grants, guarantees, advisory service, due diligence) to enable investment projects in support of the energy-water-land use nexus
 - Generate lessons and insights for further replication across the region
- **Expected outcomes:**
 - Invest in pilot projects focusing on agribusiness in Central Asia
 - Explore replication opportunities in the region

For further information, please visit:

<https://oe.cd/well-nexus>



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